3GPP TSG-RAN WG2 #113-e R2-210xxxx

Electronic Meeting, 25th Jan – 5th Feb 2021

Agenda Item: 6.7.3 UE capability corrections

Source: Huawei, HiSilicon

Title: Report of [Post113-e][214][DAPS] Correction on inter-node signalling for DAPS UE capability coordination (Huawei)

Document for: Discussion, Decision

# 1 Introduction

This document is the summary of the following email discussion:

* [Post113-e][214][DAPS] Correction on inter-node signalling for DAPS UE capability coordination (Huawei)

Scope: Try to agree to the CR based on [R2-2102347](https://www.3gpp.org/ftp/TSG_RAN/WG2_RL2/TSGR2_113-e/Docs/R2-2102347.zip) and clarify technical issues raised. If no technical issues are identified, provide agreed CR.

Intended outcome: Agreed CR (if possible)

Deadline: Short

The main intention is to identify if there are technical issues with CR R2-2102347. If no technical issues are identified, we will try to agree to this CR.

# 2 Discussion

## 2.1 Background

Regarding whether source/target indication is based on UE capability signalling or inter-node RRC signalling, RAN2 decided to further consider inter-node signalling based solution in RAN2#112e:

* Some support but some companies are not convinced.
* Postponed. Companies are requested to come back next time with concrete proposals with no UE impacts (i.e. only inter-node signalling).

In the offline discussion [AT113-e][212][MOB] UE capability corrections for LTE and NR mobility (Nokia) in RAN2#113 [1], we continued discussing about candidate solutions and we had three options on table as below:

**Option 1: Not pursue the topic.**

**Option 2: Consider simplify the signalling to share the source band and source FSpCC.**

**Option 3: The source indicates the allowed BCs, selected band entry and selected FSpCC to target**

During this offline discussion, most companies’ views converged to simplified option 2 and proponent companies prepared a CR [2] for formal agreement. According to companies’ online/offline feedback, the following companies were fine to have this CR, including:

Huawei, HiSilicon, Nokia, Nokia Shanghai Bell, ZTE Corporation, Sanechips, MediaTek, Qualcomm, Intel, LG Electronics.

But there was still concern about if there was technical issues with CR R2-2102347, so we perform this 1-week email discussion to further discuss with respect to the guideline below:

* 1-week email to try to agree to the CR if possible (unless any technical issues are identified, the CR will be agreed)

## 2.2 Technical discussion

In this CR R2-2102347 [2], the key part is that source informs the target the source FeatureSetDownlinkPerCC-Id and FeatureSetUplinkPerCC-Id as follows.

ConfigRestrictInfoDAPS-v16xy ::= SEQUENCE {

 sourceFeatureSetPerDownlinkCC FeatureSetDownlinkPerCC-Id,

 sourceFeatureSetPerUplinkCC FeatureSetUplinkPerCC-Id

}

|  |
| --- |
| ***configRestrictInfoDAPS* field descriptions** |
| ***sourceFeatureSetPerUplinkCC/sourceFeatureSetPerDownlinkCC***Indicates an index referring to the position of the *FeatureSetUplinkPerCC/FeatureSetDownlinkPerCC* selected by source in the *featureSetsUplinkPerCC/featureSetsDownlinkPerCC*. |

This is assistance information to help target gNB determine which FSpCC UE capability is used in source cell, with the knowledge of source cell and target cell’s band information from HANDOVER REQUEST message, then target gNB can select a band combination for DAPS which contains corresponding source band, target band, uplink and downlink source FSpCCs.

One concern raised in offline-[AT113-e][212] was that it’s not clear how the target can know which featuresetcombination and which feature set the source is using only by this FSpCC assistance information. But other companes thought this minimum signalling is a compromise, and it is still possible for taget gNB to make a conservative configuration for UE in target cell, with the assumption that more UE resource is occupied by source. In this way the combination of the configurations will not exceed UE capability.

To sum up, this source FSpCC assistance information is to ease network implementation, i.e. avoid FSpCC level ambiguity, thus it helps find a suitable target cell configuration during DAPS handover. This solution may not be so complete, but it can still make some benefit meanwhile with the minimum specification impact.

**Question**: **Is there technical issues with this CR R2-2102347? Opponent companies are requested to provide identified technical issues here, and proponent companies can also provide comments.**

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| Company | Any technical issues identified or other comments |
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# 3 Conclusion

Based on the discussion in the previous section we propose the following:

# 4 Reference

1. R2-2102446 Summary of [AT113-e][212][MOB] UE capability corrections for LTE and NR mobility (Nokia) Nokia discussion Rel-16 NR\_Mob\_enh-Core, LTE\_feMob-Core
2. R2-2102347 Correction on inter-node signalling for DAPS UE capability coordination Huawei, HiSilicon, Nokia, Nokia Shanghai Bell, ZTE Corporation, Sanechips CR Rel-16 38.331 16.3.1 2468 - F NR\_Mob\_enh-Core

# Annex

# In order to ease possible offline discussions, all delegates having provided input in this document are requested to fill the following table.

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